

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Previously Presented) A holographic recording and reproducing method a) for recording data in a holographic recording medium comprising at least a recording layer in which data are to be recorded as phase information of light by projecting a signal beam and a reference beam emitted from a first light source and having a wavelength λ_0 thereonto and a servo layer disposed on an opposite side of the recording layer as viewed in a direction of signal beam incidence on the holographic recording medium, the holographic recording medium having regions in which servo projection structures are formed and b) for reproducing holographic data from the holographic recording medium by projecting the reference beam onto the holographic recording medium, the holographic recording and reproducing method comprising:

setting a first optical path of the signal beam so that the signal beam is projected onto other regions of the servo layer than regions in which the servo projection structures are formed; and

setting a second optical path, different than the first optical path, of a servo beam emitted from a second light source and having a wavelength λ_1 different from that of the signal beam so that the servo beam is projected onto one of the regions of the servo layer in which the servo projection structures are formed after passing through an objective lens through which the signal beam passes and projecting the servo beam onto the servo layer along the thus set optical path of the servo beam,

the servo beam being emitted from the second light source at a same time as the signal beam and the reference beam are emitted from the first light source.

2. (Canceled)

3. (Previously Presented) A holographic recording and reproducing apparatus a) for recording data in a holographic recording medium comprising at least a recording layer in which data are to be recorded as phase information of light by projecting a signal beam and a reference beam thereonto and a servo layer disposed on an opposite side of the recording layer as viewed in a direction of signal beam incidence on the holographic recording medium, the holographic recording medium having regions in which servo projection structures are formed and b) for reproducing holographic data from the holographic recording medium by projecting the reference beam onto the holographic recording medium, the holographic recording and reproducing apparatus comprising:

signal beam path setting means including an objective lens for converging the signal beam and adapted for setting a first optical path of the signal beam so that the signal beam is projected onto other regions of the servo layer than regions in which the servo projection structures are formed;

servo beam path setting means for setting a second optical path of a servo beam different from the first optical path of the signal beam so that the servo beam is projected onto one of the regions of the servo layer in which the servo projection structures are formed after passing through an objective lens through which the signal beam passes and projecting the servo beam onto the servo layer along the thus set optical path of the servo beam;

a first light source to emit the signal beam and the reference beam having a wavelength λ_0 ; and

a second light source to emit the servo beam having a wavelength λ_1 ,

the first light source and the second light source being driven simultaneously, thereby simultaneously emitting the signal beam, the reference beam, and the servo beam.

4. (Original) A holographic recording and reproducing apparatus in accordance with Claim 3, wherein the servo beam projecting means comprises beam deflecting means for deflecting the servo beam in a predetermined direction so that the servo beam impinges on the objective lens with an incidence angle different from that of the signal beam.

5. (Previously Presented) A holographic recording and reproducing apparatus in accordance with Claim 4, wherein the beam deflecting means comprises a diffraction grating disposed on an incidence side of the servo beam with respect to the objective lens.

6. (Previously Presented) A holographic recording and reproducing method a) for recording data in a holographic recording medium comprising at least a recording layer in which data are to be recorded as phase information of light by projecting a signal beam and a reference beam emitted from a first light source and having a wavelength λ_0 thereonto and a servo layer disposed on an opposite side of the recording layer as viewed in a direction of signal beam incidence on the holographic recording medium, the servo layer having servo projection structures b) for reproducing holographic data from the holographic recording medium by projecting the reference beam onto the holographic recording medium, the holographic recording and reproducing method comprising:

setting a first optical path of the signal beam so that the signal beam is projected onto a first region of the servo layer different from second regions of the servo layer on which the servo projection structures are formed;

setting a second optical path, different than the first optical path, of a servo beam emitted from a second light source and having a wavelength λ_1 different from that of the signal beam so that the servo beam is projected onto one of the second regions of the servo layer on which the servo projection structures are formed, after passing through an objective lens through which the signal beam passes; and

projecting the servo beam onto the servo layer along the thus set second optical path of the servo beam,

wherein the servo beam is emitted from the second light source at a same time as the signal beam and the reference beam are emitted from the first light source.

7. (Previously Presented) A holographic recording and reproducing apparatus in accordance with Claim 6 wherein the first optical path of the signal beam and the second optical path of the servo beam are oblique.